IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Malcolm M. Smith
Serial No.:	10/033,572
Filing Date:	November 2, 2001
Confirmation No.:	9167
Group Art Unit:	2614
Examiner:	Alexander Jamal
Title:	WIRELESS COMMUNICATION SYSTEMS WITH SIGNAL SELECTION AND COMBINATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL REPLY BRIEF

Applicant has appealed to the Board of Patent Appeals and Interferences from the Final Action of the Examiner issued June 23, 2006 and the Advisory Action issued September 6, 2006 finally rejecting Claims 1-40. In response to the Examiner's Supplemental Answer issued February 29, 2008 Applicant respectfully submits herewith this supplemental brief in reply.

REAL PARTY IN INTEREST

The present Application was assigned to Cisco Technology, Inc., a California corporation, as indicated by an assignment from the inventor recorded on November 2, 2001 in the Assignment Records of the United States Patent and Trademark Office at Reel 012426, Frames 0601-0603.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-40 stand rejected pursuant to a Final Action issued June 23, 2006. Claims 1-40 are all presented for appeal.

STATUS OF AMENDMENTS

A Response to Examiner's Action was filed on June 21, 2005 in response to an Office Action issued March 21, 2005. Claims 1, 9, 17, 21, 25, and 33 were amended. A Response to Examiner's Final Action was filed on October 17, 2005 in response to a Final Action issued August 15, 2005. No further amendments were made to the claims. An Advisory Action issued November 7, 2005. A Request for Continued Examination was filed on November 15, 2005. Claims 1, 5, 9, 13, 17, 21, 25, 29, 33, and 37 were amended. A Response to Examiner's Action was filed on April 11, 2006 in response to an Office Action issued January 11, 2006. Claims 1, 5, 9, 13, 17, 21, 25, 29, 33, and 37 were amended. A Response to Examiner's Final Action was filed on August 23, 2006 in response to a Final Action issued June 23, 2006. No further amendments were made to the claims. Applicant filed a Notice of Appeal and Pre-Appeal Brief Request for Review on September 25, 2006. A Notice of Panel Decision from Pre-Appeal Brief Review issued on January 18, 2006 stating that the appeal is to proceed to the Board of Patent Appeals and Interferences.

SUMMARY OF CLAIMED SUBJECT MATTER

With respect to Independent Claim 1, a communication system 370 is provided. (See FIGURE 4 and page 7, lines 13-14). The communication system 370 includes a first base transceiver station 378 and a second base transceiver station 382. (See FIGURE 4 and page 17, lines 25-28. The first base transceiver station 378 receives a first wireless signal from a mobile unit 12. (See FIGURE 4 and page 18, lines 12-14). The first wireless signal includes first and second signal portions. (See FIGURE 10 and page 12, lines 29-32). The first signal portion has a first signal characteristic. (See page 13, lines 5-8). The second base transceiver station 382 receives a second wireless signal from the mobile unit 12. (See FIGURE 4 and page 18, lines 1-6). The second wireless signal includes third and fourth signal portions. (See page FIGURE 10 and page 12, lines 29-32). The third signal portion has a second signal characteristic. (See page 13, lines 5-8). A fifth signal portion is generated by applying a processing operation to the first and third signal portions. (See page 10, lines 6-11). The processing operation is applied to the first and third signal portion independent of the second and fourth signal portions. (See page 10, lines 11-16). The processing operation can select one of the first and third signal portions using the first and second signal characteristics. (See FIGURE 6, page 10, lines 19-25, and page 13, lines 16-25). The processing operation can alternatively combine the first and third signal portions. (See page 10, lines 26-29). Combining of the first and third signal portions may include averaging or adding the first and third signal portions. (See page 14, lines 1-6).

With respect to Independent Claim 9, a method of communication is provided. (See FIGUREs 6, 14, and 15; page

12, lines 21-29; page 15, line 19, to page 16, line 13; and page 16, line 24, to page 17, line 20). The method includes receiving communication system 370 includes a first base transceiver station 378 and a second base transceiver station 382. (See FIGURE 4 and page 17, lines 25-28. The first base transceiver station 378 receives a first wireless signal from a mobile unit 12. (See FIGURE 4 and page 18, lines 12-14). The first wireless signal includes first and second signal portions. (See FIGURE 10 and page 12, lines 29-32). The first signal portion has a first signal characteristic. (See page 13, lines 5-8). The second base transceiver station 382 receives a second wireless signal from the mobile unit 12. (See FIGURE 4 and page 18, lines 1-6). The second wireless signal includes third and fourth signal portions. (See page FIGURE 10 and page 12, lines 29-32). The third signal portion has a second signal characteristic. (See page 13, lines 5-8). A fifth signal portion is generated by applying a processing operation to the first and third signal portions. (See page 10, lines 6-11). The processing operation is applied to the first and third signal portion independent of the second and fourth signal portions. (See page 10, lines 11-16). The processing operation can select one of the first and third signal portions using the first and second signal characteristics. (See FIGURE 6, page 10, lines 19-25, and page 13, lines 16-25). The processing operation can alternatively combine the first and third signal portions. (See page 10, lines 26-29). Combining of the first and third signal portions may include averaging or adding the first and third signal portions. (See page 14, lines 1-6).

With respect to Independent Claim 17, a communication system 370 is provided. (See FIGURE 4 and page 7, lines 13-14). The communication system 370 includes a means for

receiving a first wireless signal from a mobile unit 12. (See FIGURE 4 and page 18, lines 12-14). The first wireless signal includes first and second signal portions. (See FIGURE 10 and page 12, lines 29-32). The first signal portion has a first signal characteristic. (See page 13, lines 5-8). The communication system 370 includes means for receiving a second wireless signal from the mobile unit 12. (See FIGURE 4 and page 18, lines 1-6). The second wireless signal includes third and fourth signal portions. (See page FIGURE 10 and page 12, lines 29-32). The third signal portion has a second signal characteristic. (See page 13, lines 5-8). The communication system 370 includes means for generating a fifth signal portion by applying a processing operation to the first and third signal portions. (See page 10, lines 6-11). The processing operation is applied to the first and third signal portion independent of the second and fourth signal portions. (See page 10, lines 11-16). The processing operation can select one of the first and third signal portions using the first and second signal characteristics. (See FIGURE 6, page 10, lines 19-25, and page 13, lines 16-25). The processing operation can alternatively combine the first and third signal portions. (See page 10, lines 26-29). Combining of the first and third signal portions may include averaging or adding the first and third signal portions. (See page 14, lines 1-6).

With respect to Independent Claim 25, a computer readable medium is provided. (See FIGURE 5 and page 21, lines 21, to page 22, line 3). The instructions provided by the computer readable medium include receiving communication system 370 includes a first base transceiver station 378 and a second base transceiver station 382. (See FIGURE 4 and page 17, lines 25-28. The first base transceiver station 378 receives a first wireless signal from a mobile unit 12. (See FIGURE 4

and page 18, lines 12-14). The first wireless signal includes first and second signal portions. (See FIGURE 10 and page 12, lines 29-32). The first signal portion has a first signal characteristic. (See page 13, lines 5-8). The second base transceiver station 382 receives a second wireless signal from the mobile unit 12. (See FIGURE 4 and page 18, lines 1-6). The second wireless signal includes third and fourth signal portions. (See page FIGURE 10 and page 12, lines 29-32). The third signal portion has a second signal characteristic. (See page 13, lines 5-8). A fifth signal portion is generated by applying a processing operation to the first and third signal portions. (See page 10, lines 6-11). The processing operation is applied to the first and third signal portion independent of the second and fourth signal portions. (See page 10, lines 11-16). The processing operation can select one of the first and third signal portions using the first and second signal characteristics. (See FIGURE 6, page 10, lines 19-25, and page 13, lines 16-25). The processing operation can alternatively combine the first and third signal portions. (See page 10, lines 26-29). Combining of the first and third signal portions may include averaging or adding the first and third signal portions. (See page 14, lines 1-6).

With respect to Independent Claim 1, a communication system 370 is provided. (See FIGURE 4 and page 7, lines 13-14). The communication system 370 includes a first network 16, a gateway 18 connecting the first network 16 to a second network 372, and a mobile unit 12. (See FIGURE 4 and page 19, lines 1-26). The communication system 370 includes a first base transceiver station 378 and a second base transceiver station 382. (See FIGURE 4 and page 17, lines 25-28. The first base transceiver station 378 receives a first wireless signal from a mobile unit 12. (See FIGURE 4 and page 18,

lines 12-14). The first wireless signal includes first and second signal portions. (See FIGURE 10 and page 12, lines 29-32). The first signal portion has a first signal characteristic. (See page 13, lines 5-8). The second base transceiver station 382 receives a second wireless signal from the mobile unit 12. (See FIGURE 4 and page 18, lines 1-6). The second wireless signal includes third and fourth signal portions. (See page FIGURE 10 and page 12, lines 29-32). The third signal portion has a second signal characteristic. (See page 13, lines 5-8). A fifth signal portion is generated by applying a processing operation to the first and third signal portions. (See page 10, lines 6-11). The processing operation is applied to the first and third signal portion independent of the second and fourth signal portions. (See page 10, lines 11-16). The processing operation can select one of the first and third signal portions using the first and second signal characteristics. (See FIGURE 6, page 10, lines 19-25, and page 13, lines 16-25). The processing operation can alternatively combine the first and third signal portions. (See page 10, lines 26-29). Combining of the first and third signal portions may include averaging or adding the first and third signal portions. (See page 14, lines 1-6).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,728,919 issued to Kondo, et al. in view of U. S. Patent No. 6,219,550 issued to Obuchi, et al.?

ARGUMENT

1. Claims 1-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,728,919 issued to Kondo, et al. in view of U. S. Patent No. 6,219,550 issued to Obuchi, et al. According to M.P.E.P. §2143, to establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to combine the references. Second, there must be a reasonable expectation of success. Third, the prior art combination of references must teach or suggest all the claim limitations. The Examiner has not established that any criteria for a prima facie case of obviousness has been met in this instance.

First, there is no suggestion or motivation in the Kondo, et al. patent or the Obuchi, et al. patent to combine them as proposed by the Examiner. The Examiner has failed to show that there is some teaching, suggestion, or motivation to combine the Kondo, et al. patent and the Obuchi, et al. patent as proposed. The Kondo, et al. patent is directed to a mobile telephone system that reduces transmission error rate in site diversity reception among related base stations by comparing data received from the plurality of related base stations and selecting the best signal therefrom. The Obuchi, et al. patent is directed to a mobile communication system that performs error correction or convolution decoding and encoding storing and delivering documents on the Internet. The Examiner has not cited any language within the Kondo, et al. patent or the Obuchi, et al. patent that would suggest any capability for them to be combined. The Examiner merely states that one of ordinary skill in the art would be motivated to provide the feature of the claimed invention, presumably taught by the Obuchi, et al. patent, in the Kondo, et al. patent. The rationale provided by the Examiner for

their combination is purely subjective conjecture and speculation with no objective reasoning being provided to support combining the references as has been proposed. The Examiner is merely taking bits and pieces of unrelated subject matter in an improper hindsight attempt at reconstructing the claimed invention. Since the Examiner has used the claim language in a hindsight attempt to support the combination of the references, the burden to establish the first criteria of a prima facie case of obviousness has not been met.

In addition, no objective reasoning whatsoever was provided by the Examiner for combining the references as has been proposed other than through an improper hindsight reconstruction of the claimed invention. The Examiner has merely provided baseless and subjective conclusory "it would have been obvious to combine" statements using improper hindsight reconstruction without any support for such conclusory statements from any of the cited references. A statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. See M.P.E.P. 2143.01. Since the Examiner has not provided any proper reasoning, let alone objective reasoning, the burden to establish the first criteria of a prima facie case of obviousness has not been met.

In the Examiner's Answer, the Examiner relies on the fact that both the Kondo, et al. and Obuchi, et al. patents discuss site diversity in support of their combination. The Examiner also relies on the nebulous "to improve system performance" to

justify the combination of the references. However, the Examiner has not shown how one of skill in the art would think to incorporate the features of the Obuchi, et al. patent into the Kondo, et al. patent let alone be able to perform such an incorporation. The Examiner does not even discuss what process one of skill in the art would use in supporting a combination of these references. As a result, the Examiner has failed to establish the first criteria for a prima facie case of obviousness.

In the Examiner's Supplemental Answer, the Examiner contends that one of skill in the art would know that a DSP may be programmed with any sort of known processing algorithms. The Examiner goes on to allege an insufficiency in Applicant's specification. However, the issue under the first criteria for a prima facie case of obviousness is whether the cited references can be combined in the manner being proposed. The Examiner has not provided any objective reasoning for combining the references pursuant to the requirements of the M.P.E.P. as presented above. The Examiner relies on subjective conclusions and uses the language in the claims for combining the references. Combining references in such a manner is improper.

Second, a reasonable expectation of success has not been shown by the Examiner. The combination of the Kondo, et al. patent and the Obuchi, et al. patent would not be capable of performing the operation required by the claimed invention. There is no showing by the Examiner that the functions of any of the Kondo, et al. patent and the Obuchi, et al. patent would be able to operate in a single system. There has also been no showing that the combined references would even be able to perform the functionality of the claimed invention. The proposed combination attempts to combine incompatible

processing techniques that have not been shown to be capable of operating according to any degree of predictability. The Kondo, et al. patent and the Obuchi, et al. patent are addressing two different problems. The error correction and convolution encoding and decoding technique provided in the Obuchi, et al. patent performs a completely different operation than the least error selection technique of the Kondo, et al. patent. The Examiner, without the improper hindsight look through the claimed invention, has not addressed how the proposed combination of the Kondo, et al. patent and the Obuchi, et al. patent would have any success whatsoever let alone a reasonable expectation of success. Therefore, Applicant respectfully submits that the Examiner has failed to establish the second criteria for a prima facie case of obviousness.

In the Examiner's Answer, the Examiner for the first time discusses the second criteria for a prima facie case of obviousness. As admitted by the Examiner, the Kondo, et al. patent only discloses an ability to select between two signals. The Obuchi, et al. patent discloses performing convolutional encoding of a respective received signals to double its data size (see col. 21, lines 1-4, of the Obuchi, et al. patent) and performs a majority determination on the convolution encoded data (see col. 24, lines 7-39, of the Obuchi, et al. patent). The Kondo, et al. patent does not perform any convolution encoding nor majority determination on convolution encoded data. There is no showing by the Examiner how and where the convolution encoding and majority determination functions of the Obuchi, et al. patent can be performed in the Kondo, et al. patent. Without an ability for the features of the Obuchi, et al. patent to be performed with the features of the Kondo, et al. patent, no success can be

achieved with their combination let alone a reasonable expectation of success as required to satisfy the second criteria for a prima facie case of obviousness.

In the Examiner's Supplemental Answer, the Examiner asserts that the algorithms of the Obuchi, et al. patent would be implemented in the same DSP of the Kondo, et al. patent that performs the signal selecting algorithms disclosed in the Kondo, et al. patent. However, the Examiner has not shown that such a substitution would work. The Examiner has not provided any indication that the system of the Kondo, et al. patent could operate with such a re-programmed DSP. The rest of the system of the Kondo, et al. patent operates according to the disclosed signal selecting algorithms of the Kondo, et al. patent. The rest of the system of the Kondo, et al. patent would not be able to operate according to the convolutional encoding and majority determination of the Obuchi, et al. patent if programmed into the DSP as it was designed for the disclosed signal selecting algorithms of the Kondo, et al. patent and not the convolutional encoding and majority determination of the Obuchi, et al. patent. The Examiner is blindly assuming that the system of the Kondo, et al. patent would still operate upon a change in DSP programming. There is no disclosure or teaching in either the Kondo, et al. or Obuchi, et al. patents sufficient for one of skill in the art to indicate that the system operation would merrily continue upon a re-programming of a DSP. Accordingly, the Examiner cannot show a reasonable likelihood of success for the proposed combination.

Third, the Examiner has not shown that the proposed Kondo, et al. - Obuchi, et al. combination teaches or suggests all of the claim limitations. For example, Independent Claims 1, 9, 17, 25, and 33 recite in general the ability to perform

either of the steps of selecting one of the first and third signal portions using the first and second signal characteristics or combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions. By contrast, the Examiner readily admits that the Kondo, et al. patent fails to disclose an ability to perform adding or averaging first and third signal portions as required by the claimed invention. To overcome the deficiencies of the Kondo, et al patent, the Examiner proposes to combine the Obuchi, et al. patent with the Kondo, et al. patent. The portions of the Obuchi, et al. patent cited by the Examiner are directed to an error rate measurement device that measures an error between bits received from base stations and generates a mean error rate between base stations. The error rates determined in the Obuchi, et al. patent are used in selecting a convolution encoded signal output from a plurality of convolution encoders. A composite device of the Obuchi, et al. patent may select a convolution encoded signal output according to a majority determination technique. The majority determination technique is hardly the same as adding or averaging signal portions. In fact, the Obuchi, et al. patent discloses producing a lost bit if a majority determination cannot be made. (See col. 23, lines 4-9, of the Obuchi, et al. patent). Thus, the Obuchi, et al. patent is directed to signal selection and fails to disclose adding or averaging of portions of first and second wireless signals received from first and second base transceiver stations in addition to selecting portions of the first and second wireless signals as provided in the claimed invention. The merging of convolution encoded signals into one signal is performed based on a selection process using the error rates and is not performed

by adding or averaging signals as required by the claimed invention. As a result, the Examiner's proposed Kondo, et al. - Obuchi, et al. combination does not have a capability to add or average signal portions from different base stations let alone perform either of the steps of selecting between signal portions or combining signal portions as provided by the claimed invention.

Moreover, Independent Claims 1, 9, 17, 25, and 33 are allowable over the Kondo, et al. and Obuchi, et al. patents because neither reference, alone or in combination, teaches or suggests selecting portions of a signal from different base stations, let alone generating a signal portion using characteristics of the selected signal portions or combinations of the selected signal portions. The Examiner contends that the Kondo, et al. patent teaches selecting the best received frame on a frame-by-frame basis using the error rate and signal level. This contention is incorrect as the subject matter of the Kondo, et al. patent cited by the Examiner is merely directed to selecting one of two signals in their entirety based on either no error or highest reception level if both signals have errors. The only processing operation performed in the Kondo, et al. patent with respect to a signal portion (i.e., a frame) is error detection code. Clearly, applying error detection code to a signal portion is not the same as selecting between signal portions or combining two signal portions as provided in the claimed invention. The structure that would result from combining the Kondo, et al. and Obuchi, et al. patents does not meet the terms of the claims.

In the Examiner's Answer, the Examiner indicates that FIGURE 8(b) of the Obuchi, et al. patent discloses adding or averaging bits. However, FIGURE 8(b) of the Obuchi, et al.

patent does not provide such a disclosure. FIGURE 8(b) of the Obuchi, et al. patent clearly shows that a specific output is provided from the composite device 35 in response to values of convolution encoded signals received from convolution encoders 34. For data received from three convolution encoders 34, an output of 1 is provided in response to the values of the three convolution encoders being equal to three or zero. As a result, it does not matter if the three values equal three or zero as the same output is provided. An output of 0.6 is provided in response to the values of the three convolution encoders being equal to two or one. As a result, it does not matter if the three values equal two or one as the same output is provided. Thus, there cannot be any adding or averaging being performed in the operation of FIGURE 8(b) as the resulting output is neither a sum or average of what is received.

Additionally, the Examiner contends in the Examiner's Answer that the Kondo, et al. patent discloses that signal may be processed and compared on a bit-by-bit basis. However, the processing is performed when an error in a frame is detected. The bits of one of the frames received from base station 11 or 13 are successively changed until no error is detected and then that entire frame is transmitted. See col. 12, lines 8-15, of the Kondo, et al. patent. Thus, an entire frame from either base station 11 or base station 13 is still transmitted, possibly adjusted as a result of error detection, and not a frame with individual bits from each frame of base station 11 and base station 13 as asserted by the Examiner.

In the Examiner's Supplemental Answer, the Examiner contends that the Obuchi, et al. patent discloses adding signal portions as part of the combining process. Though the Obuchi, et al. patent shows a plus sign in FIGUREs 8(a) and

8(b), the output produced is a specific value determined according to a value of the input signals and not a combined signal generated by adding individual signals or signal portions as required in the claimed invention.

Additionally, the Examiner contends in the Examiner's Supplemental Answer that the Kondo, et al. patent discloses bit by bit reconstruction. However, reconstruction of a bit is only performed in an error detection mode when two frames have corresponding bits with different values. No processing is performed in the Kondo, et al. patent on corresponding bits having the same value during frame error detection. Thus, the Kondo, et al. patent does not perform bit by bit reconstruction.

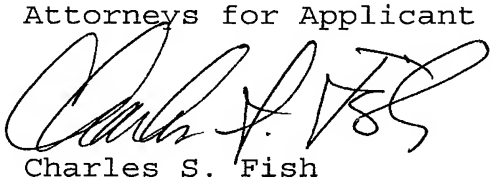
Thus, the Examiner has failed to establish the third criteria for a prima facie case of obviousness. As a result of the improper combination of the references, the lack of any expectation of success for the combination, and the lack of disclosure in the patents being combined by the Examiner, there is an insufficient basis to support the rejection of the claims.

CONCLUSION

Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over all the art cited of record, either alone or in combination, and satisfies all requirements under 35 U.S.C. §§101, 102, and 103, and 112. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a Notice of Allowance of all claims.

The Commissioner is hereby authorized to charge any fees or credit any overpayments associated with this Application to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,
BAKER BOTTS L.L.P.
Attorneys for Applicant



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CLAIMS APPENDIX

1. (Previously Presented) A communication system, comprising:

a first base transceiver station receiving a first wireless signal from a mobile unit, the first wireless signal comprising:

a first signal portion having a first signal characteristic, and

a second signal portion; and

a second base transceiver station receiving a second wireless signal from the mobile unit, the second wireless signal comprising:

a third signal portion having a second signal characteristic, and

a fourth signal portion, wherein a fifth signal portion is generated by applying a processing operation to the first and third signal portions, independently from the second and fourth signal portions, the processing operation operable to perform either of the steps of:

selecting one of the first and third signal portions using the first and second signal characteristics, and

combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions.

2. (Original) A system according to claim 1, the first signal characteristic comprising a first signal-quality value associated with the first signal portion, the second signal characteristic comprising a second signal-quality value associated with the third signal portion, and the step of using the first and second signal characteristics comprising:

performing a comparison of the first and second signal-quality values, thereby generating a comparison result;

selecting the first signal portion if the comparison result indicates that the first signal portion is preferable to the second signal portion; and

selecting the third signal portion if the comparison result indicates that the third signal portion is preferable to the first signal portion.

3. (Original) A system according to claim 2, the first signal-quality value comprising at least one of a first signal-to-noise ratio, a first signal-to-interference ratio, a first signal size, a first error-detection result, and a first error-correction result, and the second signal-quality value comprising at least one of a second signal-to-noise ratio, a second signal-to-interference ratio, a second signal size, a second error-detection result, and a second error-correction result.

4. (Original) A system according to claim 2, the first signal portion comprising:

a first sub-portion having a first sub-portion quality value; and

a second sub-portion having a second sub-portion quality value, the third signal portion comprising:

a third sub-portion having a third sub-portion quality value; and

a fourth sub-portion having a fourth sub-portion quality value, the first signal-quality value comprising a mean of the first and second sub-portion quality values, and the second signal-quality value comprising a mean of the third and fourth sub-portion quality values.

5. (Previously Presented) A system according to claim 1, the processing operation further comprising:

determining a third signal characteristic of the second signal portion;

determining a fourth signal characteristic of the fourth signal portion;

generating a sixth signal portion from the second and fourth signal portions, the sixth signal portion being generated according to either of the steps of:

selecting one of the second and fourth signal portions using the third and fourth signal portions, and

combining the second and fourth signal portions; and

sequentially concatenating the fifth and sixth signal portions to form a seventh signal portion.

6. (Original) A system according to claim 1, the first signal characteristic comprising a first signal size associated with the first signal portion, the second-signal characteristic comprising a second signal size associated with the third signal portion, and the step of using the first and second signal characteristics comprising combining the first and second signal sizes, thereby generating a third signal size associated with the fifth signal portion.

7. (Original) A system according to claim 6, wherein the step of combining the first and second signal sizes comprises adding the first and second signal sizes.

8. (Original) A system according to claim 6, wherein the step of combining the first and second signal sizes comprises determining a mean of the first and second signal sizes.

9. (Previously Presented) A method of communication, comprising:

receiving, by a first base transceiver station, a first wireless signal from a mobile unit, the first wireless signal comprising:

a first signal portion having a first signal characteristic, and

a second signal portion;

receiving, by a second base transceiver station, a second wireless signal from the mobile unit, the second wireless signal comprising:

a third signal portion having a second signal characteristic, and

a fourth signal portion; and

generating a fifth signal portion by applying a processing operation to the first and third signal portions, independently from the second and fourth signal portions, the processing operation operable to perform either of the steps of:

selecting one of the first and third signal portions using the first and second signal characteristics, and

combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions.

10. (Original) A method according to claim 9, the first signal characteristic comprising a first signal-quality value associated with the first signal portion, the second signal characteristic comprising a second signal-quality value associated with the third signal portion, and the step of using the first and second signal characteristics comprising:

performing a comparison of the first and second signal-quality values, thereby generating a comparison result;

selecting the first signal portion if the comparison result indicates that the first signal portion is preferable to the second signal portion; and

selecting the third signal portion if the comparison result indicates that the third signal portion is preferable to the first signal portion.

11. (Original) A method according to claim 10, the first signal-quality value comprising at least one of a first signal-to-noise ratio, a first signal-to-interference ratio, a first signal size, a first error-detection result, and a first error-correction result, and the second signal-quality value comprising at least one of a second signal-to-noise ratio, a second signal-to-interference ratio, a second signal size, a second error-detection result, and a second error-correction result.

12. (Original) A method according to claim 10, the first signal portion comprising:

a first sub-portion having a first sub-portion quality value; and

a second sub-portion having a second sub-portion quality value, the third signal portion comprising:

a third sub-portion having a third sub-portion quality value; and

a fourth sub-portion having a fourth sub-portion quality value, the first signal-quality value comprising a mean of the first and second sub-portion quality values, and the second signal-quality value comprising a mean of the third and fourth sub-portion quality values.

13. (Previously Presented) A method according to claim 9, the processing operation further comprising:

determining a third signal characteristic of the second signal portion;

determining a fourth signal characteristic of the fourth signal portion;

generating a sixth signal portion from the second and fourth signal portions, the sixth signal portion being generated according to either of the steps of:

selecting one of the second and fourth signal portions using the third and fourth signal characteristics, and

combining the second and fourth signal portions; and

sequentially concatenating the fifth and sixth signal portions to form a seventh signal portion.

14. (Original) A method according to claim 9, the first signal characteristic comprising a first signal size associated with the first signal portion, the second-signal characteristic comprising a second signal size associated with the third signal portion, and the step of using the first and second signal characteristics comprising combining the first and second signal sizes, thereby generating a third signal size associated with the fifth signal portion.

15. (Original) A method according to claim 14, wherein the step of combining the first and second signal sizes comprises adding the first and second signal sizes.

16. (Original) A method according to claim 14, wherein the step of combining the first and second signal sizes comprises determining a mean of the first and second signal sizes.

17. (Previously Presented) A communication system, comprising:

means for receiving a first wireless signal from a mobile unit, the first wireless signal comprising:

a first signal portion having a first signal characteristic, and

a second signal portion; and

means for receiving a second wireless signal from the mobile unit, the second wireless signal comprising:

a third signal portion having a second signal characteristic, and

a fourth signal portion; and

means for generating a fifth signal portion, the means for generating the fifth signal portion comprising means for processing the first and third signal portions, independently from the second and fourth signal portions, the means for processing operable to perform either of the steps of:

selecting one of the first and third signal portions using the first and second signal characteristics, and

combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions.

18. (Original) A system according to claim 17, the first signal characteristic comprising a first signal-quality value associated with the first signal portion, the second signal characteristic comprising a second signal-quality value associated with the third signal portion, and the means for using the first and second signal characteristics comprising:

means for performing a comparison of the first and second signal-quality values, thereby generating a comparison result;

means for selecting the first signal portion if the comparison result indicates that the first signal portion is preferable to the second signal portion; and

means for selecting the third signal portion if the comparison result indicates that the third signal portion is preferable to the first signal portion.

19. (Original) A system according to claim 18, the first signal-quality value comprising at least one of a first signal-to-noise ratio, a first signal-to-interference ratio, a first signal size, a first error-detection result, and a first error-correction result, and the second signal-quality value comprising at least one of a second signal-to-noise ratio, a second signal-to-interference ratio, a second signal size, a second error-detection result, and a second error-correction result.

20. (Original) A system according to claim 18, the first signal portion comprising:

a first sub-portion having a first sub-portion quality value; and

a second sub-portion having a second sub-portion quality value, the third signal portion comprising:

a third sub-portion having a third sub-portion quality value; and

a fourth sub-portion having a fourth sub-portion quality value, the first signal-quality value comprising a mean of the first and second sub-portion quality values, and the second signal-quality value comprising a mean of the third and fourth sub-portion quality values.

21. (Previously Presented) The system according to claim 17, the means for processing further comprising:

means for determining a third signal characteristic of the second signal portion;

means for determining a fourth signal characteristic of the fourth signal portion;

means for generating a sixth signal portion from the second and fourth signal portions, the means for generating the sixth signal portion including either of:

means for selecting one of the second and fourth signal portions using the third and fourth signal characteristics, and

means for combining the second and fourth signal portions; and

means for sequentially concatenating the fifth and sixth signal portions to form a seventh signal portion.

22. (Original) A system according to claim 17, the first signal characteristic comprising a first signal size associated with the first signal portion, the second-signal characteristic comprising a second signal size associated with the third signal portion, and the means for using the first and second signal characteristics comprising means for combining the first and second signal sizes, thereby generating a third signal size associated with the fifth signal portion.

23. (Original) A system according to claim 22, wherein the means for combining the first and second signal sizes comprises means for adding the first and second signal sizes.

24. (Original) A system according to claim 22, wherein the means for combining the first and second signal sizes comprises means for determining a mean of the first and second signal sizes.

25. (Previously Presented) A computer-readable medium having a set of instructions operable to direct a processor to perform the steps of:

receiving, by a first base transceiver station, a first wireless signal from a mobile unit, the first wireless signal comprising:

a first signal portion having a first signal characteristic, and

a second signal portion;

receiving, by a second base transceiver station, a second wireless signal from the mobile unit, the second wireless signal comprising:

a third signal portion having a second signal characteristic, and

a fourth signal portion; and

generating a fifth signal portion by applying a processing operation to the first and third signal portions, independently from the second and fourth signal portions, the processing operation operable to perform either of the steps of:

selecting one of the first and third signal portions using the first and second signal characteristics, and

combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions.

26. (Original) A computer-readable medium according to claim 25, the first signal characteristic comprising a first signal-quality value associated with the first signal portion, the second signal characteristic comprising a second signal-quality value associated with the third signal portion, and the step of using the first and second signal characteristics comprising:

performing a comparison of the first and second signal-quality values, thereby generating a comparison result;

selecting the first signal portion if the comparison result indicates that the first signal portion is preferable to the second signal portion; and

selecting the third signal portion if the comparison result indicates that the third signal portion is preferable to the first signal portion.

27. (Original) A computer-readable medium according to claim 26, the first signal-quality value comprising at least one of a first signal-to-noise ratio, a first signal-to-interference ratio, a first signal size, a first error-detection result, and a first error-correction result, and the second signal-quality value comprising at least one of a second signal-to-noise ratio, a second signal-to-interference ratio, a second signal size, a second error-detection result, and a second error-correction result.

28. (Original) A computer-readable medium according to claim 26, the first signal portion comprising:

a first sub-portion having a first sub-portion quality value; and

a second sub-portion having a second sub-portion quality value, the third signal portion comprising:

a third sub-portion having a third sub-portion quality value; and

a fourth sub-portion having a fourth sub-portion quality value, the first signal-quality value comprising a mean of the first and second sub-portion quality values, and the second signal-quality value comprising a mean of the third and fourth sub-portion quality values.

29. (Previously Presented) A computer-readable medium according to claim 25, the processing operation further comprising:

determining a third signal characteristic of the second signal portion;

determining a fourth signal characteristic of the fourth signal portion;

generating a sixth signal portion from the second and fourth signal portions, the sixth signal portion being generated according to either of the steps of:

selecting one of the second and fourth signal portions using the third and fourth signal characteristics, and

combining the second and fourth signal portions; and

sequentially concatenating the fifth and sixth signal portions to form a seventh signal portion.

30. (Original) A computer-readable medium according to claim 25, the first signal characteristic comprising a first signal size associated with the first signal portion, the second-signal characteristic comprising a second signal size associated with the third signal portion, and the step of using the first and second signal characteristics comprising combining the first and second signal sizes, thereby generating a third signal size associated with the fifth signal portion.

31. (Original) A computer-readable medium according to claim 30, wherein the step of combining the first and second signal sizes comprises adding the first and second signal sizes.

32. (Original) A computer-readable medium according to claim 30, wherein the step of combining the first and second signal sizes comprises determining a mean of the first and second signal sizes.

33. (Previously Presented) A communication system, comprising:

a first network;

a gateway connecting the first network to a second network;

a mobile unit;

a base station controller in communication with the first network;

a first base transceiver station receiving a first wireless signal from the mobile unit, the first wireless signal comprising:

a first signal portion having a first signal characteristic, and

a second signal portion; and

a second base transceiver station receiving a second wireless signal from the mobile unit, the second wireless signal comprising:

a third signal portion having a second signal characteristic, and

a fourth signal portion, wherein a fifth signal portion is generated by applying a processing operation to the first and third signal portions, independently from the second and fourth signal portions, the processing operation operable to perform either of the steps of:

selecting one of the first and third signal portions, and

combining the first and third signal portions, wherein combining includes adding or averaging the first and third signal portions.

34. (Original) A system according to claim 33, the first signal characteristic comprising a first signal-quality value associated with the first signal portion, the second signal characteristic comprising a second signal-quality value associated with the third signal portion, and the step of using the first and second signal characteristics comprising:

performing a comparison of the first and second signal-quality values, thereby generating a comparison result;

selecting the first signal portion if the comparison result indicates that the first signal portion is preferable to the second signal portion; and

selecting the third signal portion if the comparison result indicates that the third signal portion is preferable to the first signal portion.

35. (Original) A system according to claim 34, the first signal-quality value comprising at least one of a first signal-to-noise ratio, a first signal-to-interference ratio, a first signal size, a first error-detection result, and a first error-correction result, and the second signal-quality value comprising at least one of a second signal-to-noise ratio, a second signal-to-interference ratio, a second signal size, a second error-detection result, and a second error-correction result.

36. (Original) A system according to claim 34, the first signal portion comprising:

a first sub-portion having a first sub-portion quality value; and

a second sub-portion having a second sub-portion quality value, the third signal portion comprising:

a third sub-portion having a third sub-portion quality value; and

a fourth sub-portion having a fourth sub-portion quality value, the first signal-quality value comprising a mean of the first and second sub-portion quality values, and the second signal-quality value comprising a mean of the third and fourth sub-portion quality values.

37. (Previously Presented) A system according to claim 33, the processing operation further comprising:

determining a third signal characteristic of the second signal portion;

determining a fourth signal characteristic of the fourth signal portion;

generating a sixth signal portion from the second and fourth signal portions, the sixth signal portion being generated according to either of the steps of:

selecting one of the second and fourth signal portions using the third and fourth signal characteristics, and

combining the second and fourth signal portions; and

sequentially concatenating the fifth and sixth signal portions to form a seventh signal portion.

38. (Original) A system according to claim 33, the first signal characteristic comprising a first signal size associated with the first signal portion, the second-signal characteristic comprising a second signal size associated with the third signal portion, and the step of using the first and second signal characteristics comprising combining the first and second signal sizes, thereby generating a third signal size associated with the fifth signal portion.

39. (Original) A system according to claim 38, wherein the step of combining the first and second signal sizes comprises adding the first and second signal sizes.

40. (Original) A system according to claim 38, wherein the step of combining the first and second signal sizes comprises determining a mean of the first and second signal sizes.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None

CERTIFICATE OF SERVICE

None